

MITX-6771

Technical Specification Manual

Version: R1.00

Revisions

Version	Description of Version	Date Completed
R1.00	Release Version	7/3/2014

Preface

This Technical Specification Manual (TSM) specifies the board layout, components, connectors, and the I/O connection ports, motherboards features.

Intended Audience

The TSM is intended to provide detailed, technical information about the MITX-6771 and its components to the vendors, system integrators, and other engineers and technicians who need this level of information. It is specifically not intended for general audiences.

What This Document Contains

Chapter	Description
1	Introduction
2	Product Description
3	Technical Reference
4	BIOS Features

1. Introduction

1.1 Product introduction.

The MITX-6771 is a Thin mini-ITX Intel Bay Trail platform based motherboard. It has a Intel Celeron Processor J1900 (2M Cache, up to 2.42 GHz) on board with two SO-DIMM slots support up to 8G of DDR3L RAM. The I/O interfaces include: HDMI, VGA, LVDS header, Gigabit Ethernet, Mic-in, Audio-out, 5x USB USB2.0, 1x USB3.0, 2x COM, 1x mini-PCIE+ USB with SIM slot and 1x mSATA slot.

2. Product Description

2.1 Specification

Table 1 summarizes the major features of the board.

Table 1. Specification

Essentials	
Platform Codename	Bay Trail
Form Factor	mini-ITX
Processor	Intel Celeron J1900 2.42 GHz
Chipset	SoC
BIOS	AMI
System Memory	2x 204-Pin DDR3L SO-DIMM, up to 4GB each
Ethernet	1x RJ45 ,Realtek RTL8111F, GbE x1, (OEM option of second GbE x 1)
Storage	1x SATA 3Gb/s, 1x mSATA (mini-PCle)
Expansion	1x mini-PCle with USB + SIM ,1x PCIe x1 slot
Power	12/19V DC 2.5mm power jack
Graphic	
Graphic Controller	Intel HD Graphics
Display Interface	1x VGA, 1x HDMI
LCD Interface	1x dual/single channel 18/24-bit LVDS
Display Resolution	VGA - 1920x 1200, HDMI - 1920x 1200, LVDS - 1920x 1200
Dual Display	Dual independent display
I/O	
Serial Port	2x RS-232 header
Parallel Port	1x LPT
USB	4x USB2.0, 1x USB3.0 header, 1x USB2.0 header
PS/2 Port	1x KB, 1x MS header
Audio	Realtek ALC662, Line-out and MIC-in jack
Advanced Technologies	
Wake On LAN	Yes
Features and Options	Drop-in Intel Marshalltown board replacement. Intel embedded processor, long product life cycle, dual COM Port, parallel port
Mechanical & Environmental	
Operating Temperature	0 ~ 60° C (32 ~ 140° F)
Storage Temperature	-40 ~ 85° C (-40 ~ 185° F)
Operating Humidity	5% ~ 95%, 40°C, non-condensing
Dimensions	170 x 170 mm (6.7" x 6.7")

2.2 Board Layout

Figure 1 shows the location of the major components on the top-side of the MITX-6771.

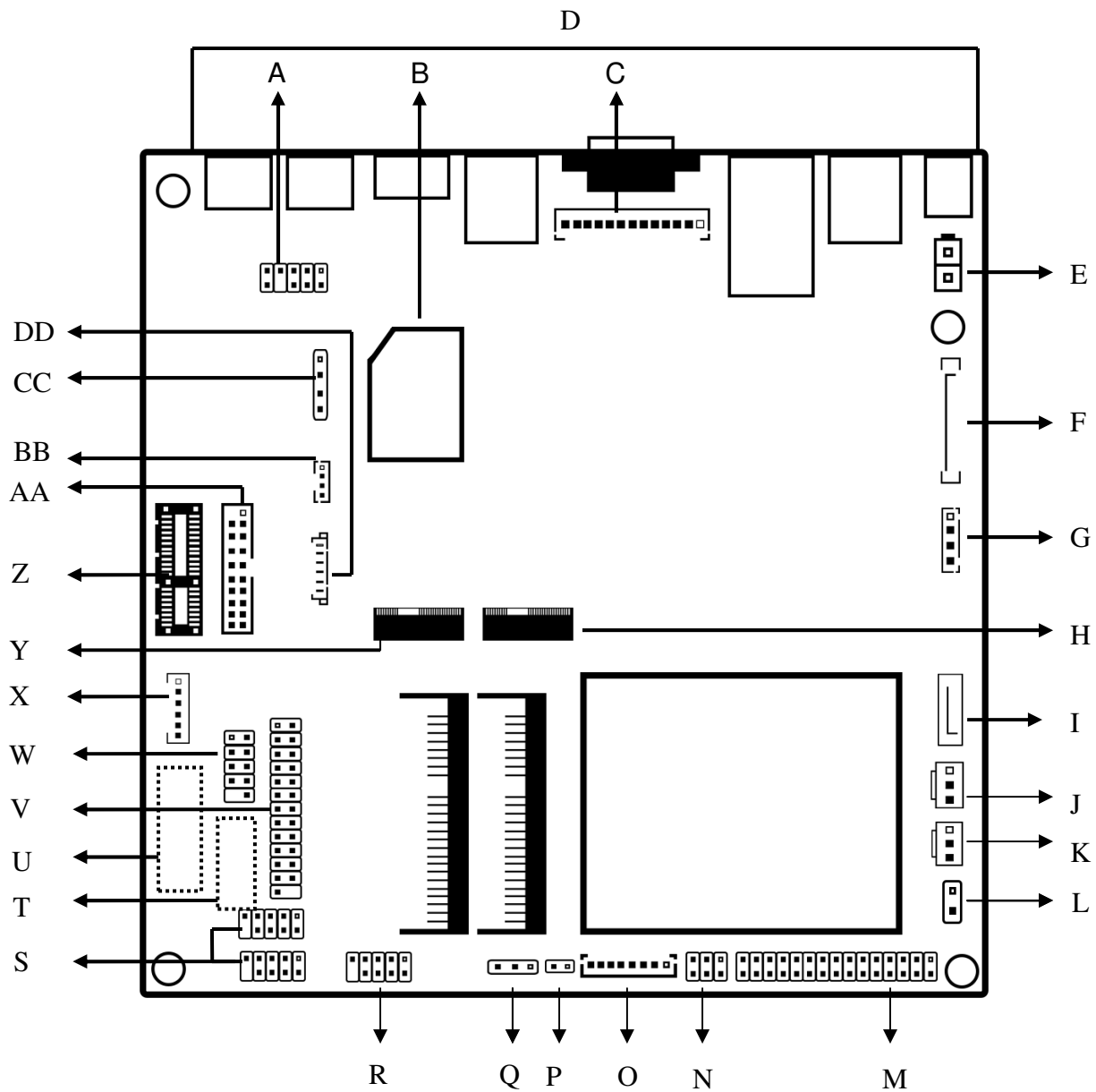


Figure 1. Major Board Components (Top)

Table 2 lists the components identified in Figure 1

Table 2. Components Show in Figure 1

Item from Figure 1	Connector	Description
A	F_Audio	Front panel audio header
B	SIM_Card	SIM Card socket
C	JVGA	VGA header
D	Back Panel Connectors	Back Panel Connectors
E	ATX1	Internal power connector
F	SATA_PW1	SATA power connector
G	SATA_PW2	SATA power connector
H	M-SATA	mSATA full or half-mini card slot
I	SATA2	SATA data connector
J	CPU FAN	3-wire CPU fan header
K	SYS FAN	3-wire system fan header
L	CLR_CMOS	Clear CMOS jumper
M	LVDS	LVDS connector
N	LVDS-PWR_SEL	Flat panel voltage selection jumper
O	BLT_PWR	Flat panel backlight power header
P	MON_SW	Momentary Switch header
Q	BLT_PWR_SEL	Flat panel backlight selection header
R	F_PANEL	Front panel header
S	COM1, COM2	Serial port headers
T	USB	USB headers (on some configuration)
U	TPM_Hearder	Trusted Platform Module Header
V	LPT	Parallel port header
W	USB	USB headers
X	KS/MS	KS/MS
Y	Mini-PCIE	PCI Express Full/Half-Mini card slot
Z	PCIE	PCI Express 1.0a x1 connector
AA	USB	USB 3.0 header
BB	INT_SPK	Internal stereo speakers connector
CC	SPDIF	S/PDIF header
DD		Factory use

2.3 Back Panel Connectors

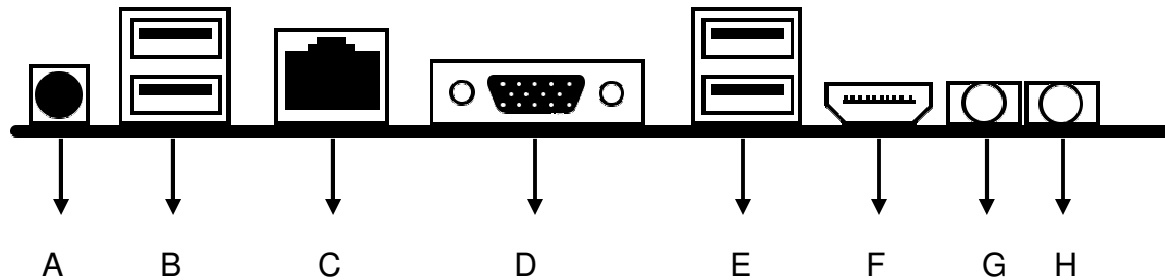


Figure 2. Back Panel Connectors

Table 3 lists the components identified in Figure 2

Table 3. Components Show in Figure 2

Item	Description
A	DC input jack
B	USB2.0 ports
C	LAN connector
D	VGA connector
E	USB2.0 ports
F	HDMI connector
G	Analog line-out
H	Microphone in

2.4 Dimension

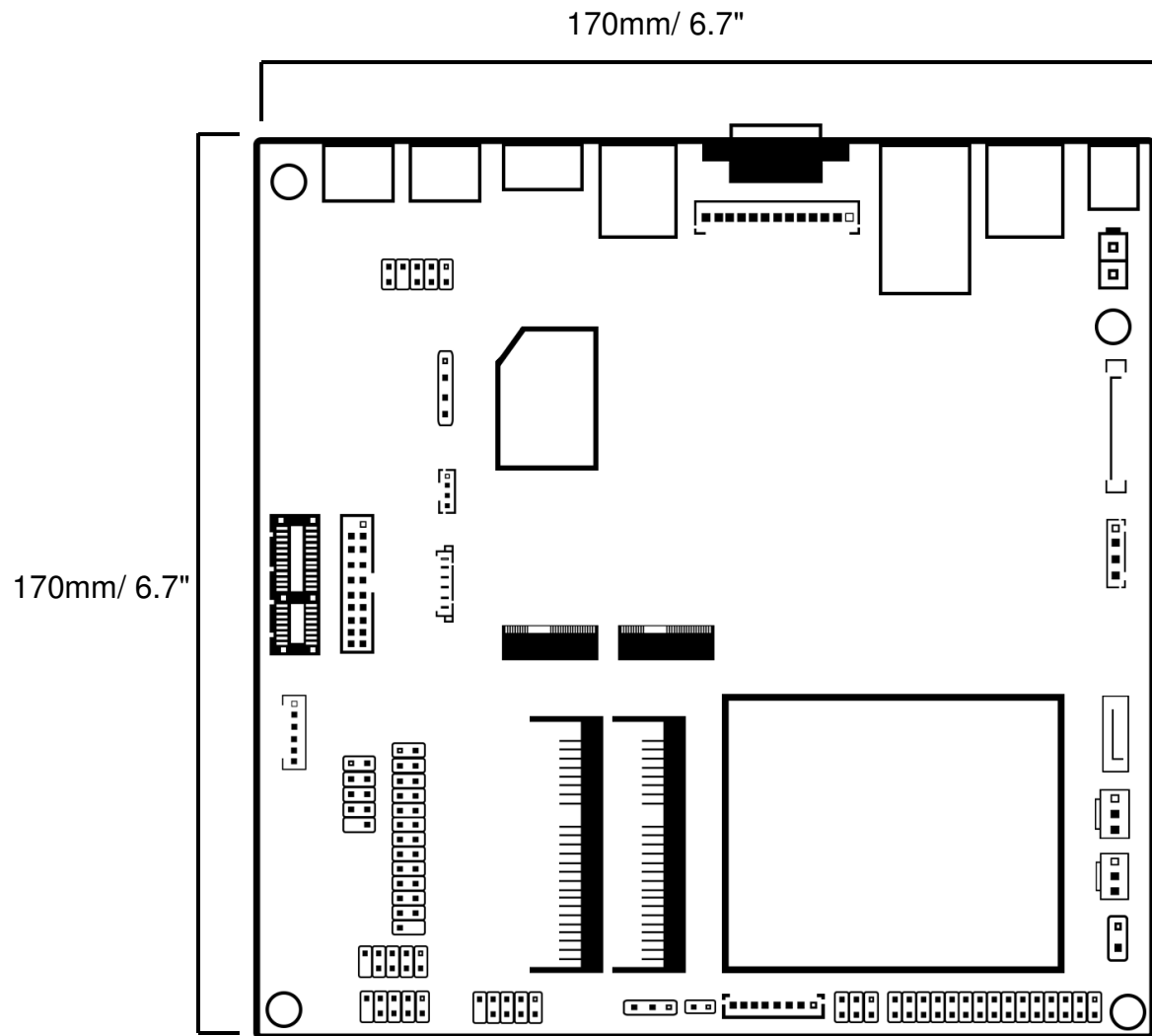


Figure 3. Board Dimension

2.5 Block Diagram

Figure 4 is a block diagram of the major functional areas of the board.

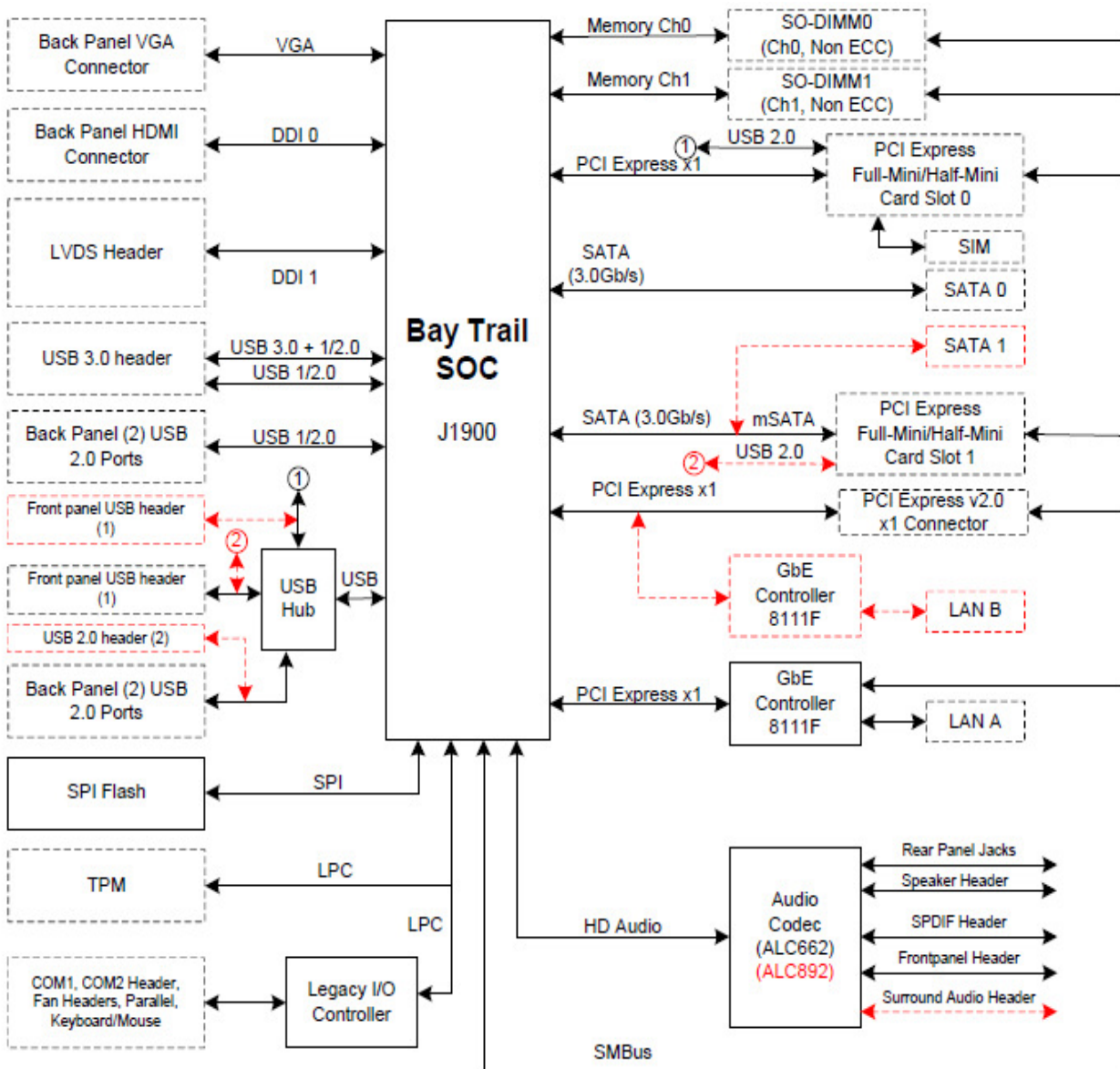


Figure 4. Block Diagram

3. Technical Reference

3.1 Connectors and Headers (TOP)

Figure 5 shows the locations of the connectors and headers on the top-side of the board.

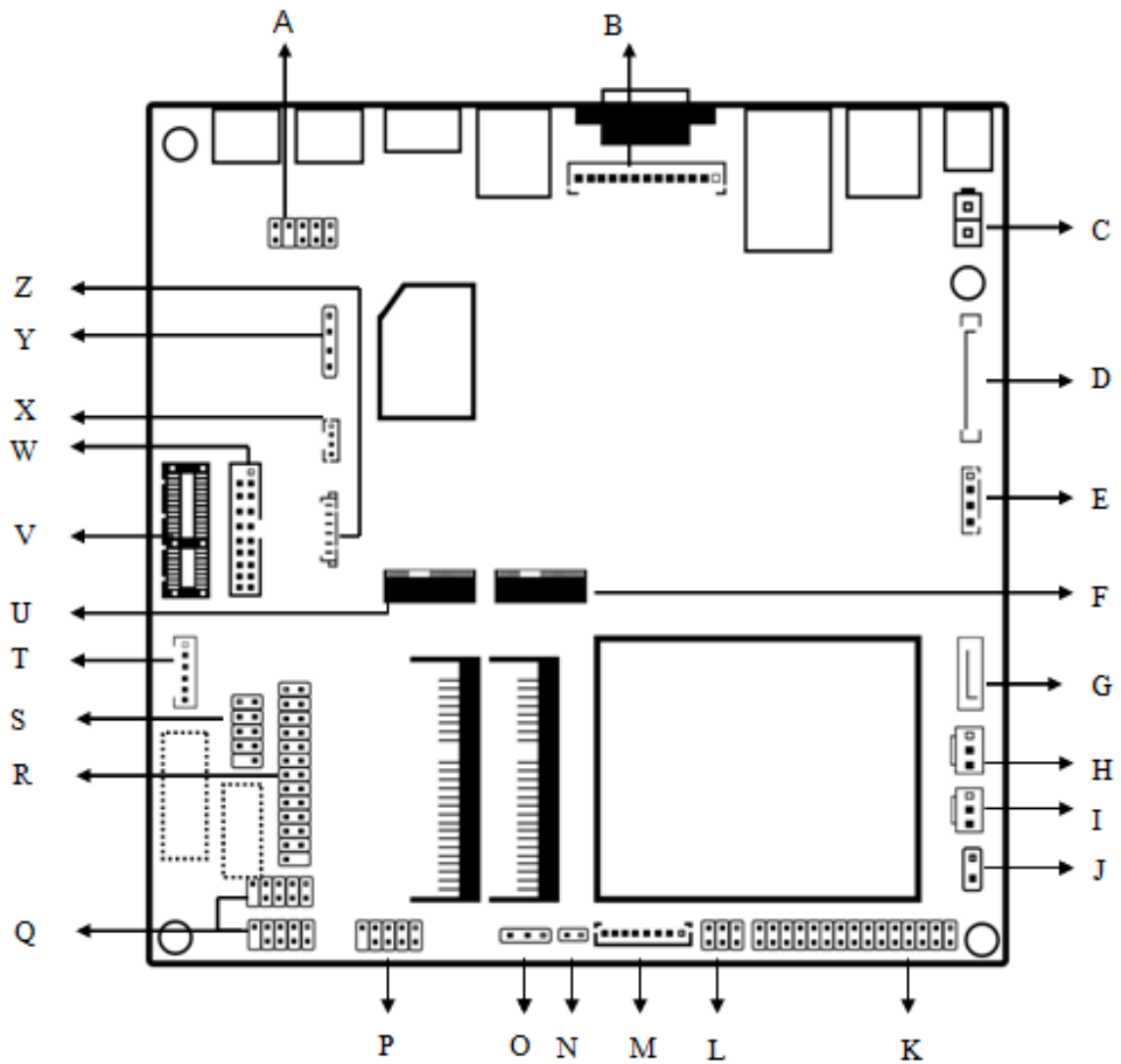


Figure 5. Connectors and Headers (top)

Table 4 - 29 lists the connectors and headers identified in Figure 5.

Table 4. Front panel audio header (Figure. 5. A)

Pin	Signal Name	Description
1	MIC_L	Front Panel MIC in Left
2	GND	Ground
3	MIC_R	Front Panel MIC in Right
4	N/A	
5	FRONT_R	Front Panel Audio out Right
6	F_IO_SENCE	Front Audio Jack detection
7	GND	Ground
8	N/A	
9	FRONT_L	Front Panel Audio out Left
10	F_IO_SENCE	Front Audio Jack detection

Table 5. VGA header (Figure. 5. B)

Pin	Signal Name
1	DAC_5V
2	5V_VSYNC
3	5V_HSYNC
4	GND
5	VGA_R
6	GND
7	VGA_G
8	GND
9	VGA_B
10	GND
11	VGA_DDC_DATA
12	VGA_DDC_CLK

Table 6. Internal power connector (Figure. 5. C)

Pin	Signal Name
1	Power (12/19V DC)
2	GND

Table 7. SATA power connector 1 (Figure. 5. D)

Pin	Signal Name
1	VVC_3V
2	VVC_3V
3	VVC_3V
4	GND
5	GND
6	GND
7	VVC_5V

8	VVC_5V
9	VVC_5V
10	GND
11	GND
12	GND
13	VVC_12V
14	VVC_12V
15	VVC_12V

Table 8. SATA power connector 2 (Figure. 5. E)

Pin	Signal Name
1	5V
2	GND
3	GND
4	12V

Table 10. SATA data connector (Figure. 5. G)

Pin	Signal Name
1	GND
2	SATA_TXP
3	SATA_TXN
4	GND
5	SATA_RXN
6	SATA_RXP
7	GND
8	GND
9	GND

Table 11. 3-wire CPU fan header (Figure. 5. H)

Pin	Signal Name
1	GND
2	12V DC
3	FAN_TAC

Table 12. 3-wire system fan header (Figure. 5. I)

Pin	Signal Name
1	GND
2	+12V DC
3	FAN_TAC

Table 13. Clear CMOS jumper (Figure. 5. J)

Pin	Description
1, 2 Open	Normal
1, 2 Close	Clear CMOS

Table 14. LVDS connector (Figure. 5. K)

Pin	Signal Name	Pin	Signal Name
1	LVDS_PWR	2	LVDS_PWR
3	LVDS_PWR	4	GND
5	GND	6	GND
7	LVDS_TX_A0N	8	LVDS_TX_A0P
9	LVDS_TX_A1N	10	LVDS_TX_A1P
11	LVDS_TX_A2N	12	LVDS_TX_A2P
13	GND	14	GND
15	LVDS_TX_CLKAN	16	LVDS_TX_CLKAP
17	LVDS_TX_A3N	18	LVDS_TX_A3P
19	LVDS_TX_B0N	20	LVDS_TX_B0P
21	LVDS_TX_B1N	22	LVDS_TX_B1P
23	LVDS_TX_B2N	24	LVDS_TX_B2P
25	GND	26	GND
27	LVDS_TX_CLKBN	28	LVDS_TX_CLKBP
29	LVDS_TX_B3N	30	LVDS_TX_B3P

Table 15. Flat panel LVDS voltage power jumper (Figure. 5. L)

Pin	Description
1, 2 Close	12V
3, 4 Close	5V
4, 5 Close	3.3V

Table 16. Flat panel backlight power header (Figure. 5. M)

Pin	Signal Name
1	LCD_BKLT_ON
2	BKLT_PWM
3	VIN_LVDS_F
4	VIN_LVDS_F
5	GND
6	GND
7	BLT_UP
8	BLT_DOWN

Table 17. Panel Switch header (Figure. 5. N)

Pin	Signal Name
1	DISPLAY_ON/OFF
2	GND

Table 18. Flat panel backlight power selection header (Figure. 5. O)

Pin	Description
1, 2 Close	12V
2, 3 Close	VDC

Table 19. Front panel header (Figure. 5. P)

Pin	Signal Name
1	HD_LED-
2	PWR_LED-
3	HD_LED+
4	PWR_LED+
5	RESET
6	Power Button
7	GND
8	GND
9	NC
10	Key

Table 20. Serial port headers (Figure. 5. Q)

Pin	Signal Name
1	ND CD
2	MSIN
3	NSOUT
4	NDTR
5	GND
6	NDSR
7	NDSS
8	NCTS
9	NRI
10	N/A

Table 21. Parallel port header (Figure. 5. R)

Pin	Signal Name	Pin	Signal Name
1	P_STB	2	P_AFD
3	P_D0	4	ERRJ
5	P_D1	6	P_INIT
7	P_D2	8	P_SLIN
9	P_D3	10	GND
11	P_D4	12	GND

13	P_D5	14	GND
15	P_D6	16	GND
17	P_D7	18	GND
19	ACKJ	20	GND
21	BUSY	22	GND
23	PE	24	LPT_DET#
25	SLCT	26	NC

Table 22. Front USB 2.0 headers (Figure. 5. S)

Pin	Signal Name
1	VCC
2	VCC
3	USB-
4	USB-
5	USB+
6	USB+
7	GND
8	GND
9	Key
10	GND

Table 23. KS/MS (Figure. 5. T)

Pin	Signal Name
1	PS2POWER
2	KDAT
3	KCLK
4	MDAT
5	MCLK
6	GND

Table 24. PCI Express Full/Half-Mini card slot (Figure. 5. F, U)

Pin	M-PCIE	M-SATA
1	WAKE#	
2	+3.3 V aux	
3	Reserved	
4	GND	
5	Reserved	
6	1.5 V	
7	CLKREQ#	
8	Reserved	
9	GND	
10	Reserved	
11	REFCLK-	
12	Reserved	

13	REFCLK+	
14	Reserved	
15	GND	
16	Reserved	
17	Reserved	
18	GND	
19	Reserved	
20	Reserved	
21	GND	
22	PERST#	
23	PERn0	
24	+3.3 V aux	
25	PERp0	
26	GND	
27	GND	
28	+1.5 V	
29	GND	
30	SMB_CLK	
31	PETn0	
32	SMB_DATA	
33	PETp0	
34	GND	
35	GND	
36	USB_D-	
37	GND	(mSATA) GND
38	USB_D+	
39	+3.3 V aux	(mSATA) 3.3 V
40	GND	
41	+3.3 V aux	(mSATA) 3.3 V
42	LED_WWAN#	
43	Reserved	NC (mSATA indicator)
44	LED_WLAN#	
45	Reserved	(mSATA) Vendor
46	LED_WPAN#	
47	Reserved	(mSATA) Vendor
48	+1.5V	
49	Reserved	(mSATA) DA/DSS
50	GND	
51	Reserved	(mSATA) Presence Detection
52	+3.3 V aux	

Table 26. USB 3.0 header (Figure. 5. W)

Pin	Signal Name
1	USB_PWR
2	NC

3	NC
4	GND
5	NC
6	NC
7	GND
8	NC
9	NC
10	NC
11	DATA+
12	DATA-
13	GND
14	USB3_TXP0_R
15	USB3_TXN0_R
16	GND
17	USB3_TXP0_R
18	USB3_TXN0_R
19	USB-PWR
20	NC

Table 27. Internal stereo speakers connector (Figure. 5. X)

Pin	Signal Name
1	LOUT-
2	LOUT+
3	ROUT+
4	ROUT-

Table 28. S/PDIF header (Figure. 5. Y)

Pin	Signal Name
1	5V
2	NC
3	SPDIF_OUT_R
4	GND

4. BIOS Features

4.1 Introduction

The board uses an AMI BIOS that is stored in the Serial Peripheral Interface Flash Memory (SPI Flash) and can be updated using a disk-based program.

4.2 BIOS Updates

The BIOS can be updated using a flash utility which requires booting from DOS. . Using this utility, the BIOS can be updated from a file on a hard disk, a USB drive (a flash drive or a USB hard drive). Ask technical support for the utility and up-to-date BIOS file.

Verify that the updated BIOS matches the target system to prevent accidentally installing an incompatible BIOS.

4.3 Boot Options

In the BIOS Setup program, the user can choose to boot from a hard drive, optical drive, removable drive, or the network. The default setting is for the "UEFI: Built-in EFI Shell" when no other boot devices present

Pressing the <F12> key during POST causes a boot device menu to be displayed. This menu displays the list of available boot devices.

The network can be selected as a boot device. This selection allows booting from the onboard LAN or a network add-in card with a remote boot ROM installed.

4.4 BIOS Setup program

The BIOS Setup program can be used to view and change the BIOS settings for the computer. The BIOS Setup program is accessed by pressing the <Del> key after the Power-On Self-Test (POST) memory test begins and before the operating system boot begins. The menu bar is shown below.

Table 30. BIOS Setup Program Menu Bar

Main	Advanced	Chipset	Security	Boot	Save& Exit
BIOS Info	WakeUp Cfg	North Bridge	Password Description	Boot Option Priorities	Save Changes and Exit
Memory Info	Super IO Cfg	South Bridge	Administrator Password		Discard Changes and Exit
System Date System Time	Super IO Hardware Monitor		User Password		Save Changes and Reset
Access Level	CPU Cfg				

	PPM Cfg				Discard Changes and Reset
	IDE Cfg				
	Miscellaneous Cfg				Save Options
	Network Stack Cfg				Boot Override
	CSM Cfg				Launch EFI Shell from filesystem device
	Realtek PCIe GBE Family Controller				Reset System with TXE disable Mode

Table 31. BIOS Setup Program Function Keys

BIOS Setup Program Function Key	Description
<←> or <→>	Selects a different menu screen (Moves the cursor left or right)
<↑> or <↓>	Selects an item (Moves the cursor up or down)
<Tab>	Selects a field (Not implemented)
<Enter>	Executes command or selects the submenu
<F10>	Save the current values and exits the BIOS Setup program
<Esc>	Exits the menu

4.4.1 BIOS Setting

Note: Default field is in bold under field column.

Table 32. BIOS Setting - Main

Main	Advanced	Chipset	Security	Boot	Save& Exit
Item		Field		Description	
System Date		MM/DD/YYYY			
System Time		HH:MM:SS			

Table 33. BIOS Setting - Advanced - WakeUp Configuration

Main	Advanced	Chipset	Security	Boot	Save& Exit
WakeUp Configuration					
Item		Field		Description	
Resume On RTC Alarm		Disabled Enabled		Real Time Clock Wakeup	
Resume on Lan		Disabled Enabled		Select Enabled for Wake_On_LAN support	

Table 33-1. Advanced - Super IO Configuration

Main	Advanced	Chipset	Security	Boot	Save& Exit
Super IO Configuration					
Serial Port 1 Configuration					
Item	Field			Description	
Serial Port	Disabled Enabled			Select Enabled to enable the onboard serial port	
Change Settings	Auto IO=3F8h; IRQ=4; IO=3F8h; IRQ=3,4,5,6,7,9,10,11,12 IO=2F8h; IRQ=3,4,5,6,7,9,10,11,12; IO=3E8h; IRQ=3,4,5,6,7,9,10,11,12; IO=2E8h; IRO=3,4,5,6,7,9,10,11,12;			This feature specifies the base I/O port address and the Interrupt Request address of Serial Port	
Serial Port 2 Configuration					
Item	Field			Description	
Serial Port	Disabled Enabled			Select Enabled to enable the onboard serial port	
Change Settings	Auto IO=2F8h; IRQ=3; IO=3F8h; IRQ=3,4,5,6,7,9,10,11,12 IO=2F8h; IRQ=3,4,5,6,7,9,10,11,12; IO=3E8h; IRQ=3,4,5,6,7,9,10,11,12; IO=2E8h; IRO=3,4,5,6,7,9,10,11,12;			This feature specifies the base I/O port address and the Interrupt Request address of Serial Port	
Parallel Port Configuration					
Item	Field			Description	
Parallel Port	Disabled Enabled			Select Enabled to enable the onboard Parallel port	
Change Settings	Auto IO=378h; IRQ=5; DMA=3; IO=378h; IRQ=5,6,7,9,10,11,12;DMA=1,3; IO=278h; IRQ=5,6,7,9,10,11,12;DMA=1,3; IO=3BCh; IRQ=5,6,7,9,10,11,12;DMA=1,3;			This feature specifies the base I/O port address and the Interrupt Request address of Parallel Port	
Device Mode	Standard Parallel Port Mode (SPP) EPP Mode ECP Mode EPP Mode & ECP Mode			Select the feature of mode of the onboard Parallel Port	

Table 33-2. Advanced - Super IO Hardware Monitor

Main	Advanced	Chipset	Security	Boot	Save& Exit
Super IO Hardware Monitor					
PC Hardware Monitor Status					
Item	Field		Description		
Smart Fan Mode	Full on Mode Automatic Mode Manual Mode		Select how the system controls the speeds of the onboard fans		
PWM slope setting	1 PWM 2 PWM		Select the fans to run at x PWM (Pulse Width Modulation) per		

	4 PWM 8 PWM	Celsius degree
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Table 33-3. Advanced - CPU Configuration

Main	Advanced	Chipset	Security	Boot	Save& Exit
CPU Configuration					
Socket O CPU Information					
CPU Thermal Configuration					
Item	Field		Description		
Active Processor Cores	ALL 1		This feature determines how many CPU cores will be activated for each CPU. When all is selected, all cores in the CPU will be activated		
Limit CPUID Maximum	Disabled Enabled		Select Enabled to set the maximum CPU ID value and to boot a legacy OS that cannot support processors with extended CPUID functions. The options are Enabled and Disabled (for the Windows OS)		
Execute Disable Bit	Disabled Enabled		Set to Enabled to enable the Execute Disable Bit to allow the processor to designate areas in the system memory where an application code can execute and where it cannot, thus preventing a worm or a virus from flooding illegal codes to overwhelm the processor or damage the system during an attack		
Hardware Prefetcher	Disabled Enabled		If set to Enabled, the hardware prefetcher will prefetch streams of data and instructions from the main memory to the L2 cache to improve CPU performance		
Adjacent Cache Line Prefetch	Disabled Enabled		Select Enabled for the CPU to prefetch both cache lines for 128 bytes as comprised. Select Disabled for the CPU to prefetch both cache lines for 64 bytes		
Intel Virtualization Technology	Disabled Enabled		Select Enabled to use the Intel Virtualization Technology to allow one platform to run multiple operating systems and applications in independent partitions, creating multiple "virtual" systems in one physical computer		
Power Technology	Disable Energy Efficient		This feature allows the user to configure power management		

	Custom	settings
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Table 33-4. Advanced - PPM Configuration

Main	Advanced	Chipset	Security	Boot	Save& Exit
PPM Configuration					
Item	Field		Description		
EIST	Disabled Enabled		Select to Enable Intel EIST (Enhanced Intel SpeedStep Technology)		
CPU C State Report	Disabled Enabled		Select to Enable C State Report		
Enhanced C State	Disabled Enabled		Select to Enable Enhanced C State		
Max CPU C-State	C7 C6 C1		Select C State Mode		
Soix	Disabled Enabled		Select to Enable Soix active idle state		

Table 33-5. Advanced - IDE Configuration

Main	Advanced	Chipset	Security	Boot	Save& Exit
IDE Configuration					
Item	Field		Description		
Serial-ATA	Disabled Enabled		Select the mode for the installed SATA drives		
SATA Test Mode	Disabled Enabled		Select to Enable test mode		
SATA Speed Support	Gen 1 Gen 2		Select SATA speed		
SATA ODD Port	Port0 ODD Port1 ODD No ODD		Select SATA Optical Disc Drive for SATA port		
SATA Mode	IDE Mode AHCI Mode		Select the option of IDE Mode or AHCI Mode for installed SATA drive		
Serial-ATA Port 0	Disabled Enabled		Select Enabled to enable a SATA port specified by the user		
SATA Port0 HotPlug	Disabled Enabled		Select to Enable SATA hot-plug		
Serial-ATA Port 1	Disabled Enabled		Select Enabled to enable a SATA port specified by the user		
SATA Port1 HotPlug	Disabled Enabled		Select to Enable SATA hot-plug		

Table 33-6. Advanced - Miscellaneous Configuration

Main	Advanced	Chipset	Security	Boot	Save& Exit
Miscellaneous Configuration					
Item	Field		Description		
OS Selection	Windows 8.X Android Windows 7		Select OS to be installed		

Table 33-7. Advanced - Network Stack Configuration

Main	Advanced	Chipset	Security	Boot	Save& Exit
Network Stack Configuration					
Item	Field		Description		
Network Stack	Disabled Enabled		Select Enabled to enable PXE (Preboot Execution Environment) or UEFI (Unified Extensible Firmware Interface) for network stack support		

Table 33-8. Advanced - CSM Configuration

Main	Advanced	Chipset	Security	Boot	Save& Exit
CSM Configuration					
Item	Field		Description		
CSM Support	Disabled Enabled		Select to Enable Compatibility Support Module (CSM)		
Network	Do not launch UEFI only Legacy only Legacy first UEFI first		Network boot option filter		
Storage	Do not launch UEFI only Legacy only Legacy first UEFI first		Storage boot option filter		
Video	Do not launch UEFI only Legacy only Legacy first UEFI first		Video boot option filter		
Other PCI devices	UEFI first Legacy only		Other PCI devices boot option filter		

Table 34. BIOS Setting - Chipset

Main	Advanced	Chipset	Security	Boot	Save& Exit
North Bridge					
South Bridge					
USB Configuration					

Item	Field	Description
USB OTG Support	PCI mode Disabled	Select Enabled USB OTG Port support
USB VBUS	On off	Select Enabled USB VBUS support
XHCI Mode	Enabled Disabled Auto Smart Auto	Select USB XHCI Mode support
USB2 Link Power Management	Enabled Disabled	Select Enabled USB USB2 Link Power Management support
USB 2.0(EHCI) Support	Enabled Disabled	Select Enabled USB 2.0 EHCI support
USB Per Port Control	Enabled Disabled	Select Enabled USB per port control
USB Port 0	Enabled Disabled	Select Enabled for USB Port 0 support
USB Port 1	Enabled Disabled	Select Enabled for USB Port 1 support
USB Port 2	Enabled Disabled	Select Enabled for USB Port 2 support
USB Port 3	Enabled Disabled	Select Enabled for USB Port 3 support

Restore AC Power Loss

Item	Field	Description
Restore AC Power Loss	Power off Power on Last State	Select Power-Off for the system power to remain off after a power loss. Select Power-On for the system power to be turned on after a power loss. Select Last State to allow the system to resume its last power state before a power loss.

Table 35. BIOS Setting - Security

Main	Advanced	Chipset	Security	Boot	Save& Exit
Administrator Password					
User Password					

Table 36. BIOS Setting - Boot

Main	Advanced	Chipset	Security	Boot	Save& Exit
Boot Option Priorities					
Item		Field		Description	
Boot Option #1		UEFI: Built-in EFI Shell		Prioritize the order of bootable devices that the system to boot from	

Table 37. BIOS Setting - Save & Exit

Main	Advanced	Chipset	Security	Boot	Save & Exit
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Item	Field	Description
Save Changes and Exit	Yes/ No	Select this option to leave the BIOS setup utility and reboot the computer for the new system configuration parameters can take effect
Discard Changes and Exit	Yes/ No	Select this option to quit the BIOS Setup without making any permanent changes to the system configuration, and reboot the computer
Save changes and Reset	Yes/ No	Select this option to leave the BIOS setup utility and reboot the computer for the new system configuration parameters can take effect
Save Options		
Item	Field	Description
Save Changes	Yes/ No	Select this option to save all changes made. This will not reset (reboot) the system
Discard changes	Yes/ No	Select this option and press <Enter> to discard all the changes and return to the AMI BIOS Utility Program
Restore Defaults	Yes/ No	Select this option and press <Enter> to restore to factory setting defaults
Save as User Defaults	Yes/ No	Select to enables the user to save any changes to the BIOS setup for future use
Restore User Defaults	Yes/ No	Select to retrieve user-defined settings that were saved previously
Boot Override		
UEFI: Built-in EFI Shell	Yes/ No	Override the Boot Option Priorities sequence in the Boot menu and immediately boot the system with built-in EFI Shell
Launch EFI Shell from Filesystem device	Yes/ No	Select to launch EFI Shell for your computer
Reset System with TXE disable Mode	Yes/ No	Select this item and press <Enter> to reset your system when your system is in TXE Disabled mode